Chapter 3.5

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1 Safety Note

Switch off the digitizer before performing any service interventions at the digitizer.

2 Replacements at the Erasure Unit

2.1 Removing the Erasure Unit

(1) Press down the clamping plate on top of the erasure unit.

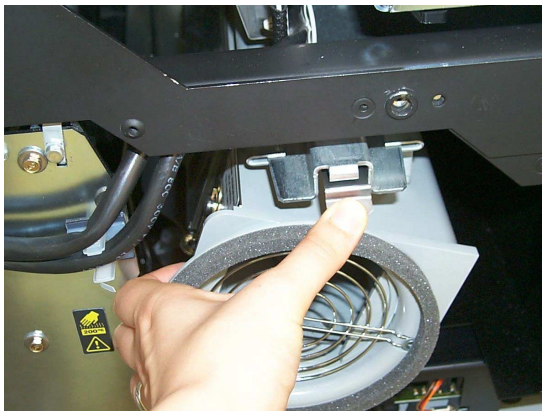


Figure 1

(2) Pull out the erasure unit to the stop.

Figure 2

(3) Take the erasure unit with one hand and press down the other clamping plate on the top with the other hand and pull it out.

(4) Lay down the unit on a save and stable place.

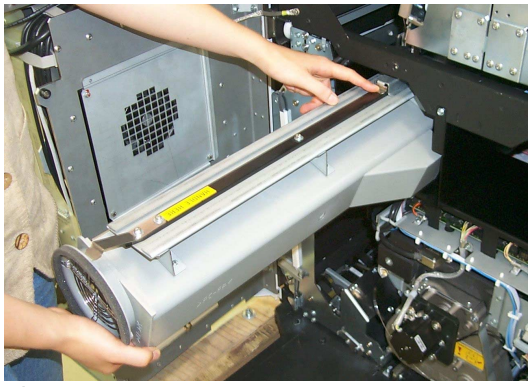


Figure 3

2.2 Replacement of the Lamps

(5) Open the two latches beside the glass.

Figure 4

(6) Swing up the glass covering of the lamps.

(7) Pull the lamps which needs to be replaced carefully out of the sockets.

The glass bulbs of the new lamps must be clean. Use a soft cloth, do not touch with bare fingers.

(8) Insert the new lamps carefully in the sockets and push them to stop position.

Figure 5

2.3 Remounting the Erasure Unit

(9) Follow the steps in reverse order.

(10) Take care that the clamping plate locks into place by moving the erasure unit back into the digitizer.

3 Replacement of the Erasure Unit Fan

(1) Unscrew the three screws with a socket wrench (7mm), (see circles).

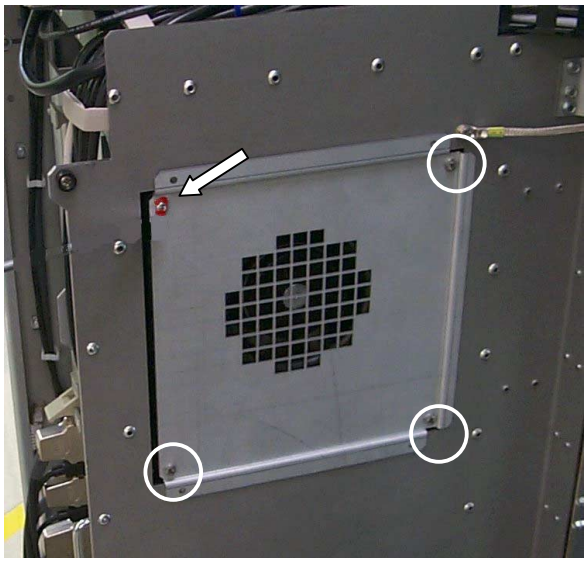


Figure 6

Do not unscrew the screw in the left upper position (see arrow)! It is secured by lacquer.

(2) Take out the fan carefully and unplug the cable.

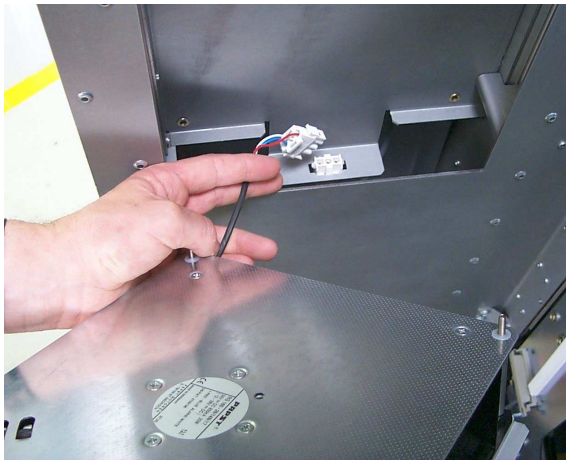


Figure 7

4 Replacements at the Transport Units

4.1 Replacing the Vacuum Pump

For replacing the vacuum pump of the IP transport unit – postscan, it is necessary to take the complete frame out of the digitizer.

(1) Open the white plastic clamp.

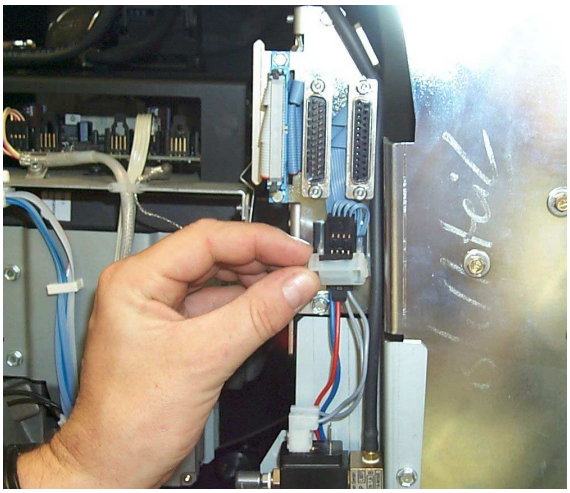


Figure 8

(2) Unplug the black plug.

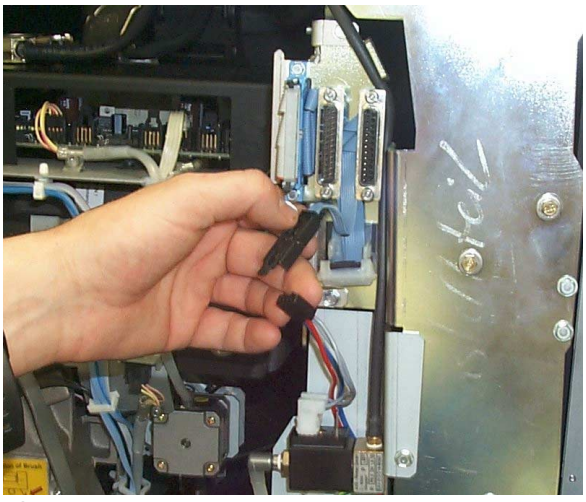


Figure 9

(3) Pull off the vacuum hose.

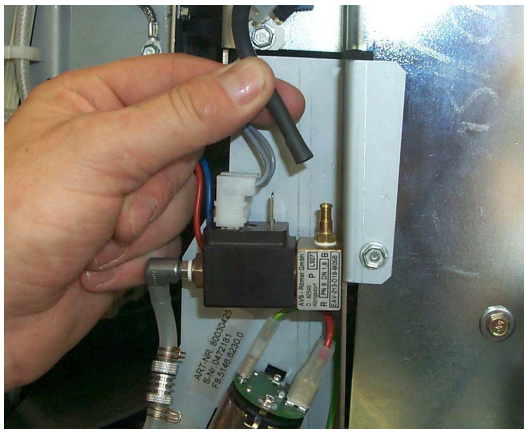


Figure 10

(4) Unscrew the three mounting screws (see circles).

Figure 11

(5) Remove the vacuum unit.

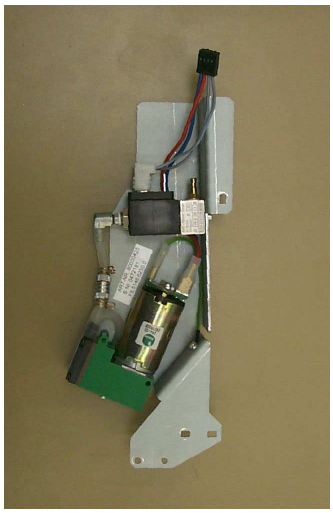


Figure 12

4.2 Replacing the Transport Units (Pre- and Postscan)

(1) Unplug both plugs.

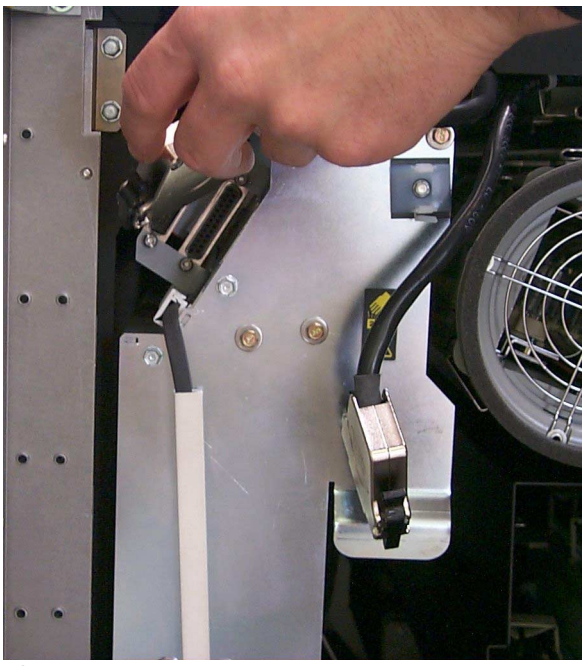


Figure 13

(2) Pull out the transport unit.

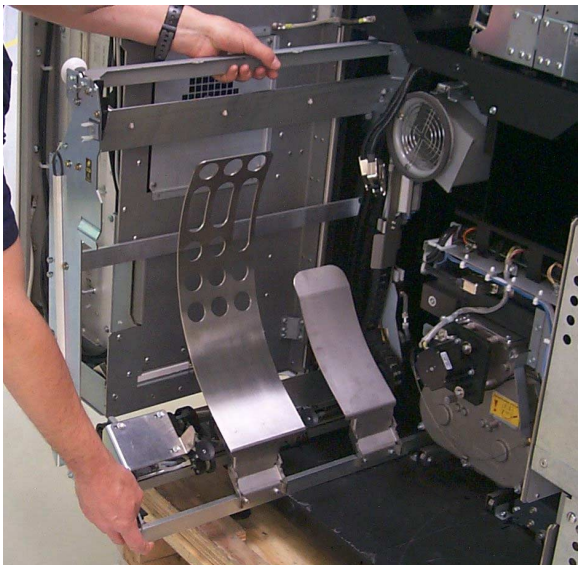


Figure 14

By repositioning the transport unit take care of the guiding bar on the bottom of the digitizer.

4.3 Replacing the Stepper Motor Boards of the Robot

(1) Remove the IP-transport unit from the machine.

(2) Move the robot manually to the top of the frame.

(3) Unscrew the covering plate with a socket wrench (5,5mm).

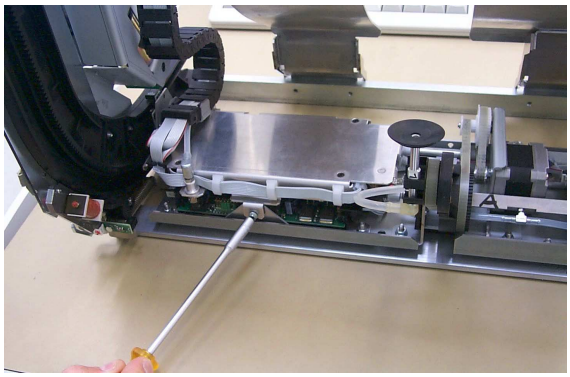


Figure 15

(4) Swing up the covering plate.

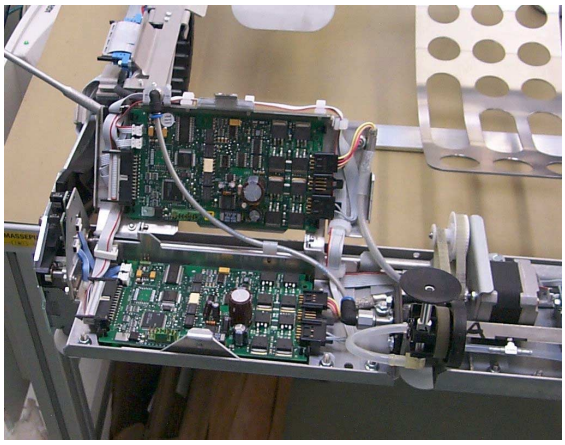


Figure 16

(5) Unplug the cables of the board.

(6) Press the black plastic clamp carefully and lift the board off the four pins.

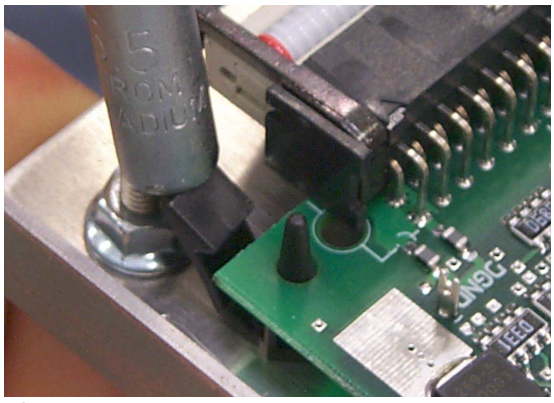


Figure 17

5 Replacements at the Scan Unit

5.1 Sliding out the Scan Unit

Check that the feet rest on the floor. Otherwise it is possible, that the digitizer tilts when you slide out the scan unit!

(1) Unlock the scan unit by loosening two screws (1) - only half a turn.

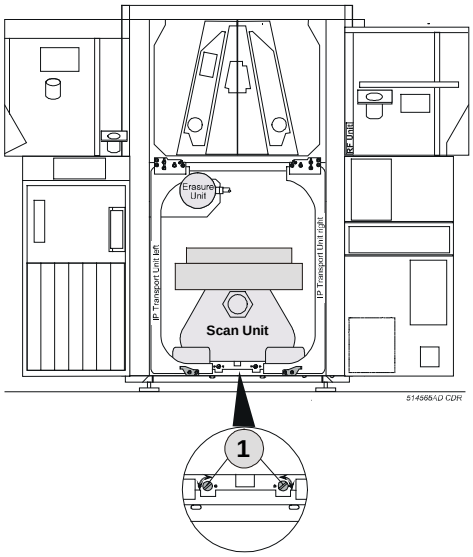


Figure 18

5.2 Replacing the Photomultiplier Tube (PMT)

(1) Pull out the scan unit to its stop.
(2) Unplug the PMT (see arrow).

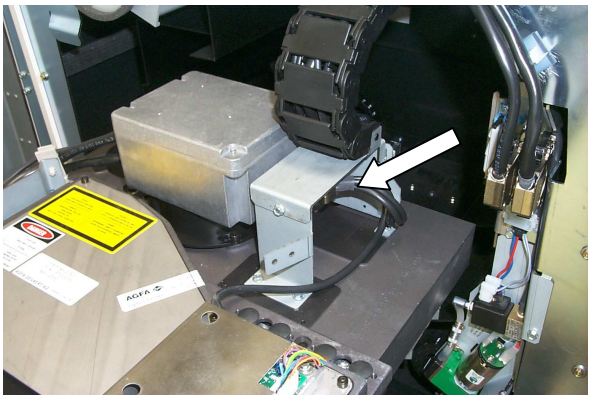


Figure 19

(3) Turn the bayonet coupling with strong pressure counterclockwise until it is unlatched.

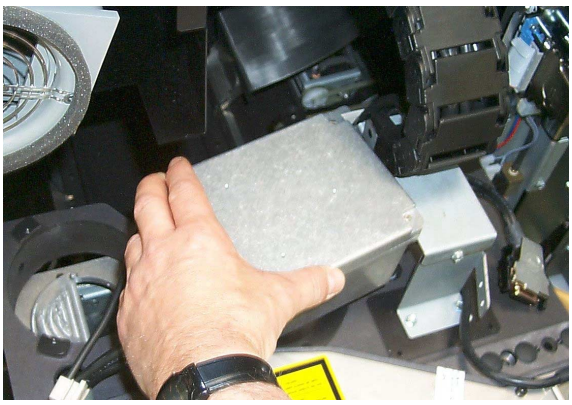


Figure 20

(4) Take out the PMT upwards.

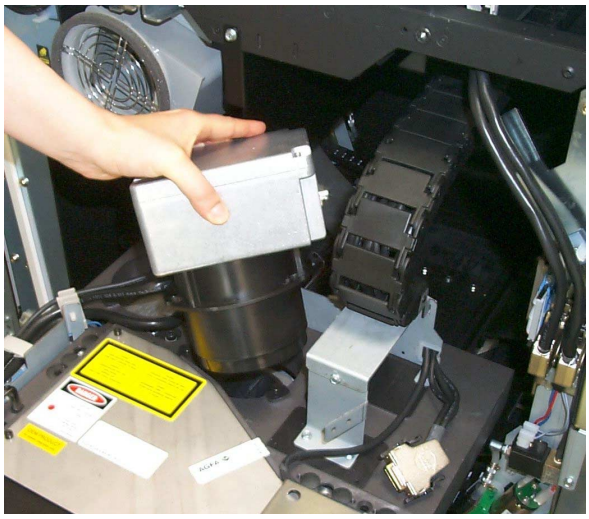


Figure 21

Putting the new Photomultiplier in Operation

- switch on the Digitizer
- install the mfa / mfb parameters from the enclosed floppy disk via the Service Menu at the user terminal
- select <INSTALL from floppy>
  `<PMT settings (mfa/mfb)>`
  The system requests:
  - to compare the S/N on the photomultiplier and the S/N stored on the floppy disk. After confirmation the parameters are loaded.
  The serial number of the exchange part is automatically entered in the infocounter file under "HW Replacement history" together with date and counter stamp.
  - to update the backup.
- calibrate all formats, see section 3.6.
- make an IP center calibration (BOL/BOS adjustment), see section 3.6.
- update the backup to save the calibration data.
- select `<Save on floppy>`
  `<Machine specific data>`
- follow the on-line instructions.
- enter the S/N number of the Digitizer on the label of the photomultiplier floppy disk.

The PM HT-power supply can be changed independently. No parameter download or further adjustments are necessary!

5.3 Replacing the 5fold Stepper Motor Board at the Scan Unit

(1) Pull out the scan unit to its stop.

(2) Press the plastic clips of the black covering plate a little inside and take away the covering.
(3) Remove the 5fold stepper motor board by lifting it off the spikes.

Figure 22

5.4 Replacing the Optic Module

5.4.1 Safety Note

Make sure that the digitizer is switched off, before you remove the optic module.

There are no serviceable parts inside the optic module.

Do not open sealed parts of the module.

Figure 23

5.4.2 Removing the Optic Module

Top view on the completely installed optic module.

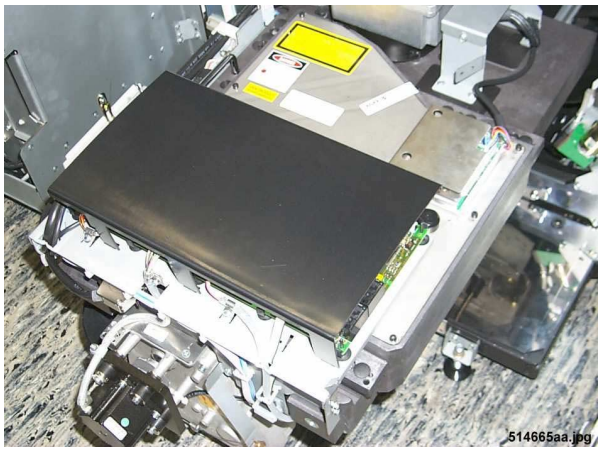


Figure 24

(1) Unplug activation plug of the optic module (Sub-D plug, 25 pins).

Locking clips prevent the plug from working loose.

Figure 25

(2) Loosen quick action closure **1** and snap lock **2** of the holder of the 5fold stepper motor board.

Figure 26

(3) Turn up the holder to its stop.

Figure 27

(4) Unplug the polygon plug (the connection is unmistakable).

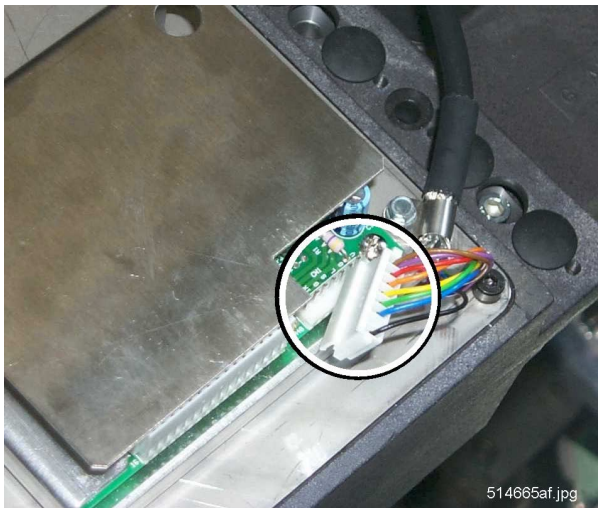


Figure 28

(5) Undo the shielding clamp, (5,5 mm socket wrench).

Figure 29

(6) Undo the four fastening screws (1-4) of the optic module (5 mm Allen key).

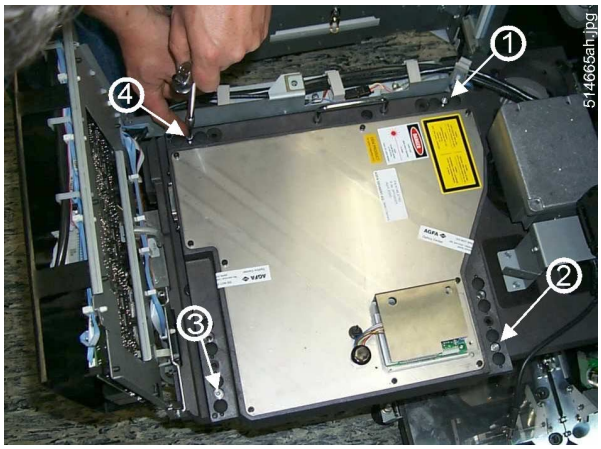


Figure 30

(7) Lift up the optic module cautiously and remove it from the scan unit.

5.4.3 Installing the Optic Module

(1) When inserting the new optic module, make sure that both centering pins (1-2) have engaged before you tighten the screws.

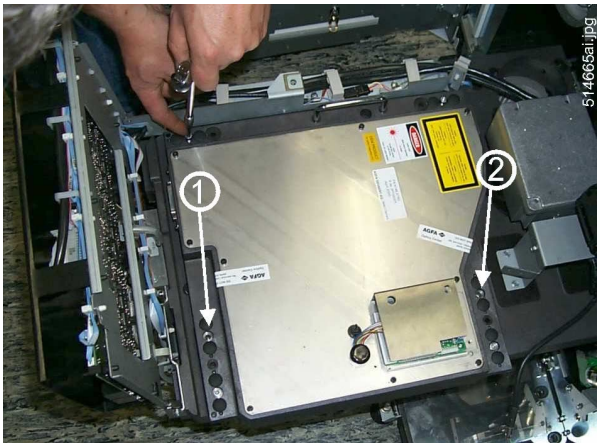


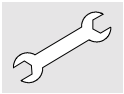
Figure 31

(2) Re-install the optic module in reverse order as described above.

(3) An adjustment of BOL/BOS settings and a shading calibration must be done after installation (see chapter 3.6).

Putting the new Optic Module in Operation

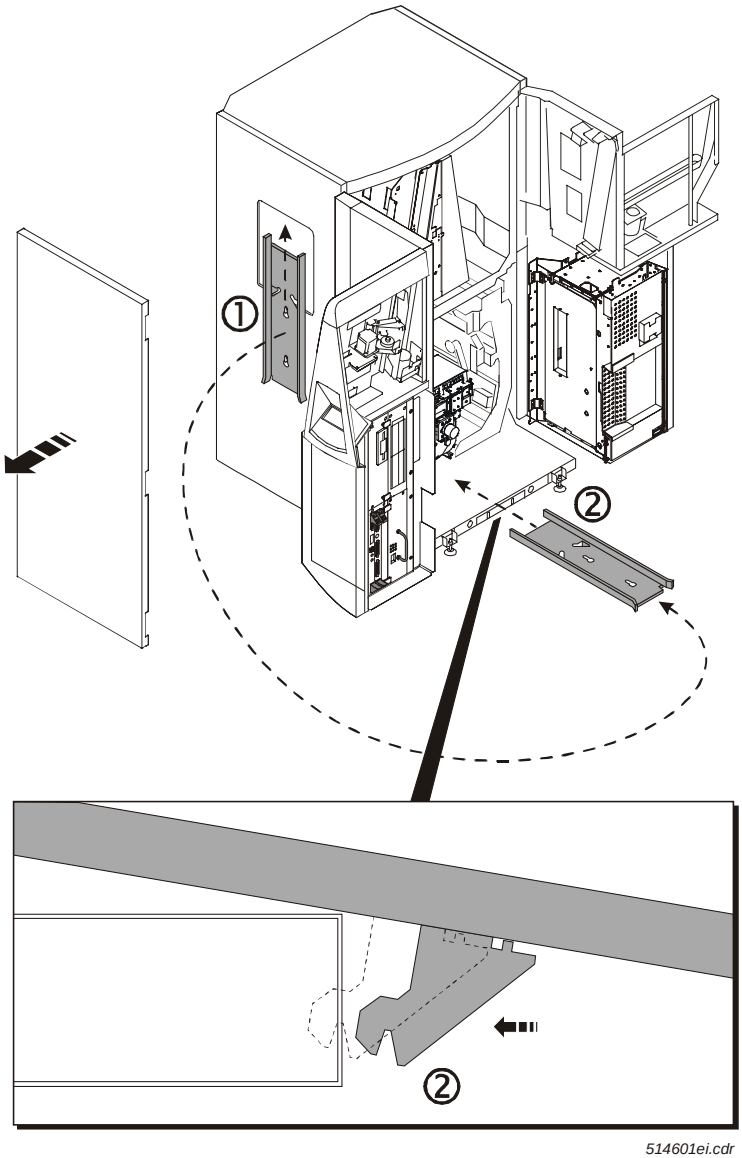
- switch on the Digitizer
- install the scanner specific data from the enclosed floppy disk via the Service Menu at the user terminal
- select <INSTALL from floppy>
  `<scanner parameters>`
  The system requests:
  - to compare the S/N on the optic module and the S/N stored on the floppy disk. After confirmation the parameters are loaded.
  The serial number of the exchange part is automatically entered in the infocounter file under "HW Replacement history" together with date and counter stamp.
  - to update the backup.
- calibrate all formats, see section 3.6.
- make an IP center calibration (BOL/BOS adjustment), see section 3.6
- update the backup to save the calibration data.



- select <Save on floppy>
  <Machine specific data>
- follow the on-line instructions.
- enter the S/N number of the Digitizer on the label of the photomultiplier floppy disk.

5.5 Removing the Scan Unit completely from the Digitizer

In order to remove the scan unit safely, use the ramp which has come with the digitizer.



1. The ramp for the scan unit is hidden behind the left side panel.

2. It is needed to remove the scan unit from the digitizer.

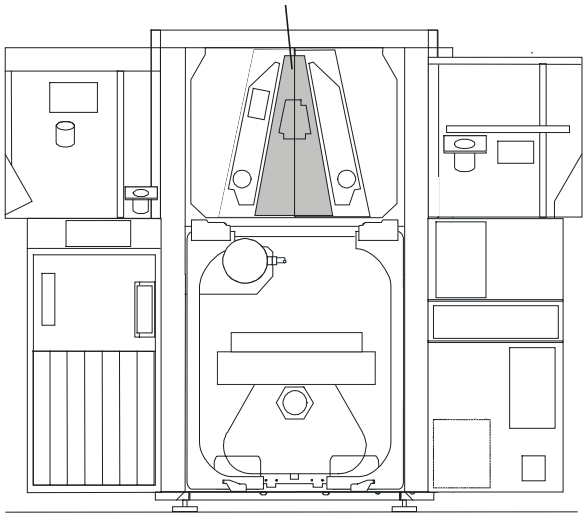
- Hook the ramp into the gaps between the two feet of the digitizer.
- Let the scan unit slide onto the ramp and then smoothly to the floor.

6 Replacement of the Cassette Unit

6.1 Preparations

(1) Open the doors of the Digitizer.

Cassette Unit



514635AA.CDR

Figure 32

(2) Turn cassette unit by 180° and loosen two grounding cables **1** (7mm socket wrench)

(3) Turn cassette unit by 180° again.

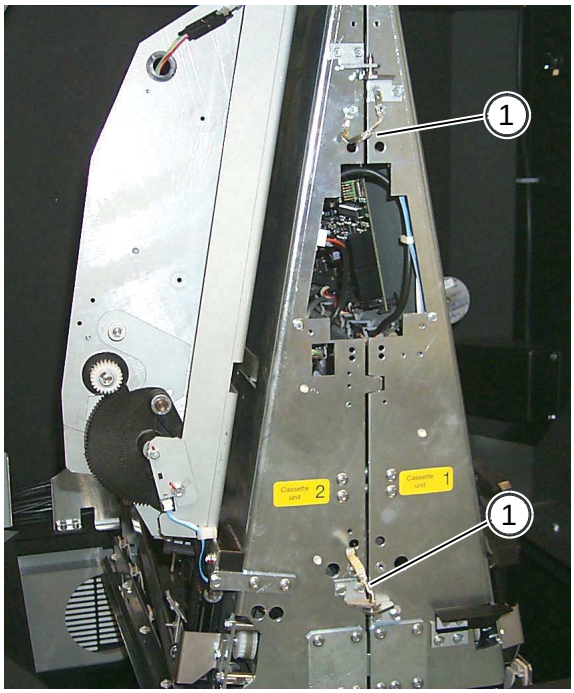


Figure 33

(4) Open quick action closure **2**.

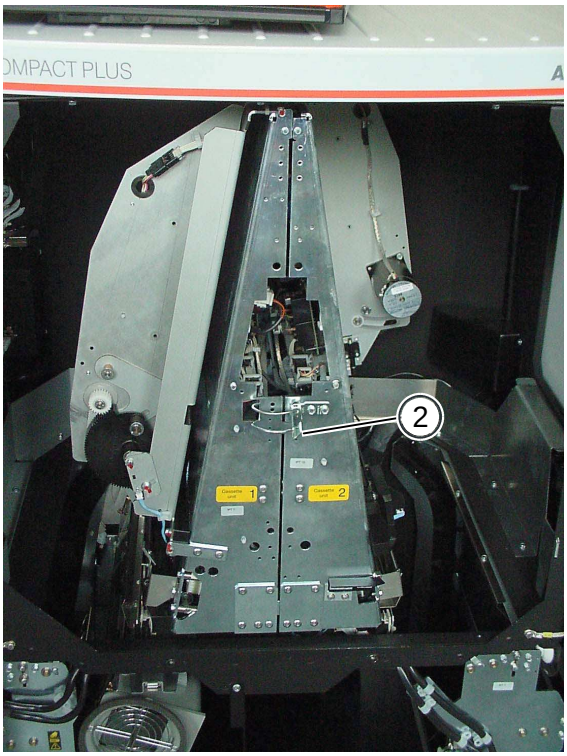


Figure 34

6.2 Removing Cassette Module 2 from the Digitizer

(1) Pull cassette module 2 cautiously out of the machine **3**.

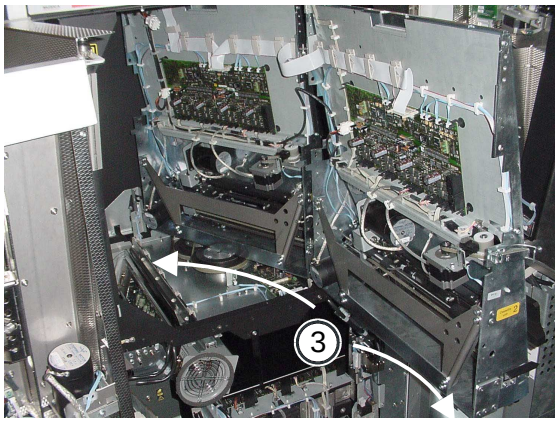


Figure 35

Overview: Cassette module 2 with complete cabling.

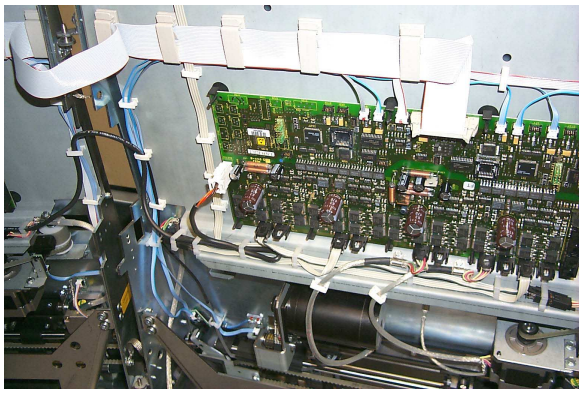


Figure 36

(2) Unclip cable supports **4**

(3) Unplug power supply cable **5**

(4) Unplug data cable **6**

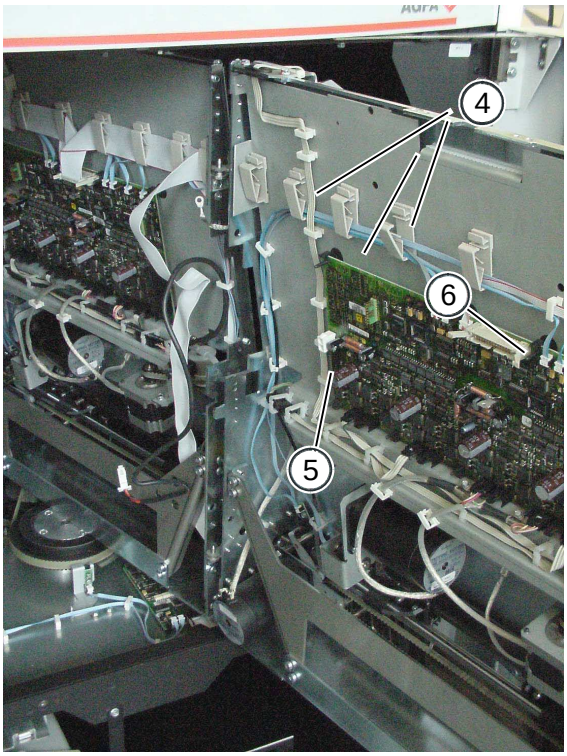


Figure 37

(5) Lift cassette module 2 cautiously until it disengages from the hinges **7**.

(6) Put cassette module 2 aside.
Mind a solid stand of the module.

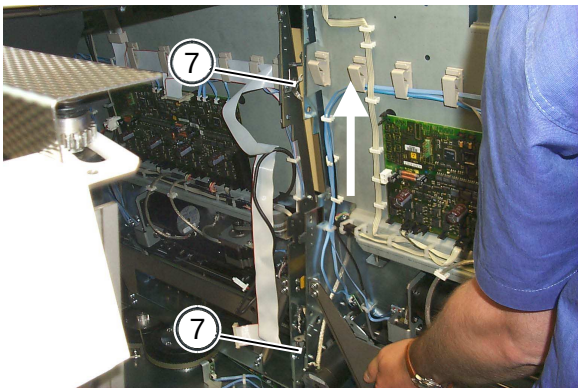


Figure 38

6.3 Removing Cassette Module 1 from the Digitizer

(1) Turn cassette module 1 by 90°

(2) Unplug power supply cable at the top of the module **8**.

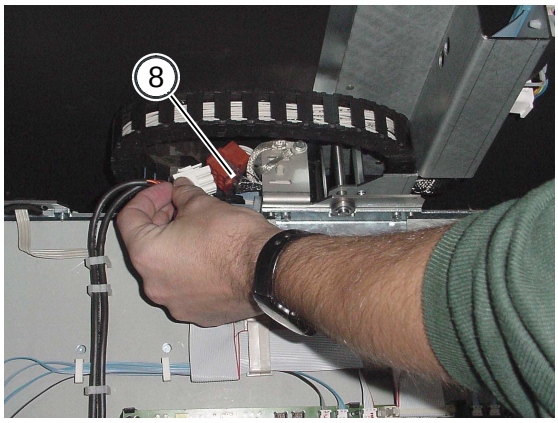


Figure 39

(3) Unplug data cable **9.**

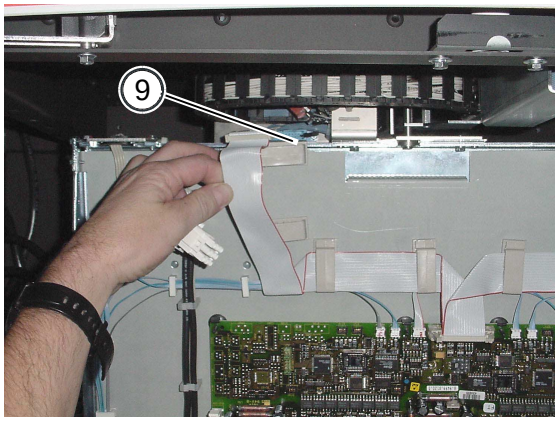


Figure 40

(4) Loosen two screws **10** at the mounting of the energy chain **11** (7 mm socket wrench).

Take care that the screws cannot fall into the digitizer.

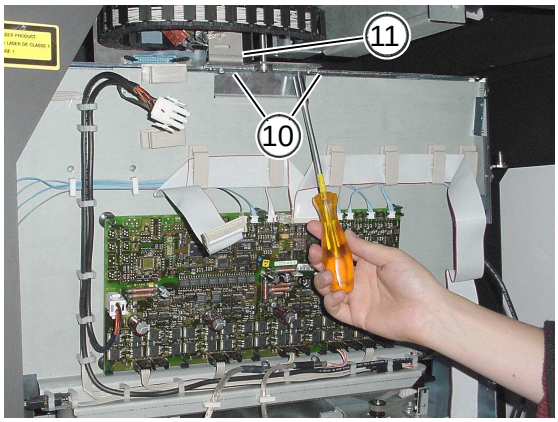


Figure 41

(5) Push the mount of the energy chain upwards **11** until the pins have left the holes **12**.

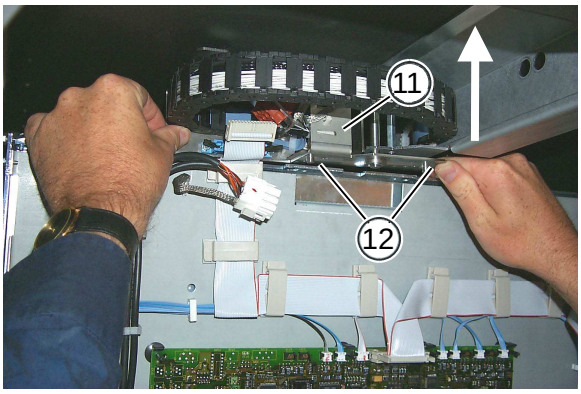


Figure 42

(6) Lift and cant cassette module 1 a little until the bolts of the rotation unit are free **13**.

(7) Put cassette module 1 aside.
Mind a solid stand of the module.

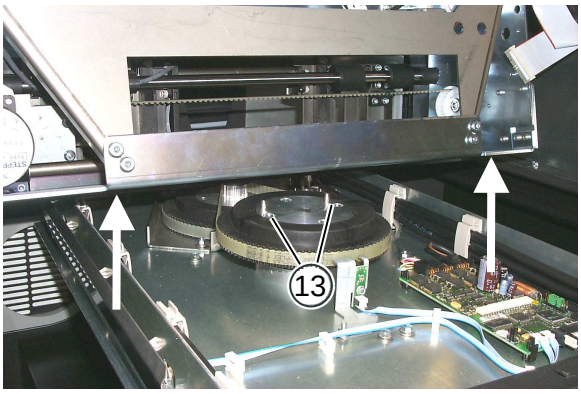


Figure 43

6.4 Re-installing the Cassette Unit

Re-install the cassette unit in reverse order as described above.